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U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Niagara Falls Boulevard Radiological Site - Removal Polrep
Initial Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region II

Subject: **POLREP #4**
Initial Removal Action PolRep for Niagara Falls Boulevard Site
Niagara Falls Boulevard Radiological Site
A23Q
Niagara Falls, NY
Latitude: 43.0965960 Longitude: -78.9520670

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From: Eric Daly, On-Scene Coordinator
Date: 6/11/2016
Reporting Period: 05/26/2016 through 06/11/2016

1. Introduction

1.1 Background

Site Number:	A23Q	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	
Response Authority:	CERCLA	**Response Type:**	Time-Critical
Response Lead:	EPA	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	6/1/2016	**Start Date:**	6/1/2016
Demob Date:		**Completion Date:**	
CERCLIS ID:	NYN000206699	**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

Removal Assessment and Removal Action

1.1.2 Site Description

The 9540 Niagara Falls Boulevard site (CERCLIS ID NYN000206699**)**, hereinafter referred to as “the

NFB site" or "the site", is located in a mixed commercial and residential area of Niagara Falls, New York. The site consists of two parcels, namely 9524 and 9540 Niagara Falls Boulevard. This site encompasses approximately 2.53 acres. Currently, the 9524 Niagara Falls Boulevard property contains a bowling alley and an asphalt parking lot; the 9540 Niagara Falls Boulevard property contains a vacant building and an asphalt parking lot. The properties are bordered to the north by a wooded area; to the east by a church; to the south by Niagara Falls Boulevard, beyond which is a residential area; and to the west by a hotel and residential area.

In 1978, the U.S. Department of Energy conducted an aerial radiological survey of the Niagara Falls region and found more than 15 properties having elevated levels of radiation above background levels. It is believed that, in the early 1960s, slag from the Union Carbide facility located on 47th Street in Niagara Falls was used as fill on the properties prior to paving. The Union Carbide facility processed ore containing naturally-occurring high levels of uranium and thorium to extract niobium. The slag contained sufficient quantities of uranium and thorium to be classified as a licensable radioactive source material. Union Carbide subsequently obtained a license from the Atomic Energy Commission, now the Nuclear Regulatory Commission, and the State of New York; however, the slag had been used as fill throughout the Niagara Falls region prior to licensing. Based on the original survey and subsequent investigations, it is believed that the radioactive Union Carbide slag was deposited on the NFB site.

1.1.2.1 Location
9524-9540 Niagara Falls Boulevard, Niagara Falls, NY

1.1.2.2 Description of Threat
Radioactive contamination

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results
In September/October 2006 and May 2007, NYSDEC conducted radiological surveys of the interior and exterior of both properties on several occasions using both an Exploranium-135 and Ludlum 2221 detectors. With the exception of an office area and storage space at 9540 Niagara Falls Boulevard that was constructed after the original building directly on top of the asphalt parking lot, interior radiation levels were relatively low. The highest reading in the newer area was 115 µR/hr; elsewhere throughout the building, radiation levels generally ranged between 10 and 20 µR/hr. Exterior readings taken at waist height generally ranged between 10 and 350 µR/hr, while the maximum reading of 600 µR/hr was recorded on contact (i.e., at the ground surface). At a fenced area behind the building located at 9540 Niagara Falls Boulevard, waist-high readings ranged between 200 and 450 µR/hr, and on-contact readings ranged between 450 and 750 µR/hr. Elevated readings were also observed on the swath of grass between the 9524 Niagara Falls Boulevard property and the adjacent property to the west that contains a hotel, and in the marshy area beyond the parking lot behind the buildings. Two biased samples of slag were collected from locations that exhibited elevated static Ludlum detector readings: one sample was collected from an area of loose blacktop that indicated readings of 515,905 cpm on the Ludlum detector, and one slag sample was collected in the marshy area that indicated readings of 728,235 cpm on the Ludlum detector.

During a reconnaissance performed by the NYSDOH and NYSDEC on July 9, 2013, screening activities showed radiation levels at 200 µR/hr with a hand-held PIC unit around an area of broken asphalt and 500 µR/hr from a soil pile containing slag at the NFB site. Readings over 600,000 cpm were recorded with a sodium iodide 2x2 scintillation detector from the soil and slag pile.

The Niagara Falls Boulevard Site (Site) was referred to the EPA by the NYSDEC and NYSDOH on July 21, 2013. No other removal actions have been taken by other government or private parties prior to this request.

On September 10, 2013, WESTON conducted a gamma radiation screening of the 9524 Niagara Falls Boulevard property using a Ludlum 2221 Scaler Ratemeter. On December 4–5, 2013, further radiological survey information was obtained from the 9524 and 9540 Niagara Falls Boulevard properties, as well as the church property located further east of the two site parcels. The highest gamma radiation screening

results were recorded from the exposed soil area in the rear, northern portion of the 9540 Niagara Falls Boulevard property.

On December 5–7, 2013, WESTON documented the areas of observed contamination at the NFB site. The areas of observed contamination were delineated by measuring the gamma radiation exposure rates, and determining where the gamma radiation exposure rate around the source equals or exceeds two times the gamma radiation at site-specific background rates. The areas of observed contamination are defined by site-attributable gamma radiation exposure rates, as measured by a survey instrument held 1 meter above the ground surface, which equal or exceed two times the site-specific background gamma radiation exposure rate. At the NFB site, an area of approximately 168,832 ft^2 was found to have gamma radiation levels which exceed two times the background measurement of 8,391 cpm. PIC data were also collected at several points to confirm the boundary.

On December 11, 2013, WESTON collected a total of 16 soil samples (including one environmental duplicate sample) and three slag samples from fifteen boreholes advanced throughout the NFB site and the First Assembly Church property located directly adjacent to the east/northeast of the site property, using hollow-stem auger drilling methods. The two soil samples collected on the First Assembly Church property are to document background conditions. At each sample location, soil samples were collected directly beneath slag; at locations where slag was not present, the soil sample was collected at the equivalent depth interval.

The soil samples were analyzed for metals by inductively coupled plasma (ICP) technique and mercury by manual cold vapor technique in accordance with SW-846 Method 6010C and 7471B, respectively. In addition, soil and slag samples were analyzed for isotopic thorium and isotopic uranium by alpha spectrometry according to DOE method A-01-R, and radium-226 and radium-228 by gamma spectrometry according to DOE Method GA-01-R. Analytical results indicate concentrations of radionuclides found in the slag and soil to be significantly higher than at background conditions (i.e., greater than 2x background concentrations).

On April 28, 2014, EPA Contractor personnel collected radon and thoron concentration measurements from locations on and in the vicinity of the NFB site. At the selected locations in background areas, above the source material, and off the source area, radon and thoron concentration measurements in pCi/L were collected with RAD7 radon detectors. The radon and thoron measurements were collected at heights of one meter above the ground surface. The measurements included uncertainty values, which were taken into account to calculate adjusted concentrations for evaluation of observed release in the air migration pathway. There were no radon or thoron concentrations that exceeded the site-specific background, nor were there any adjusted concentrations that equaled or exceeded a value two standard deviations above the mean site-specific background concentration for that radionuclide in that type of sample (i.e., there is no evidence of an observed release to air from site sources).

Based on the Pre-Remedial Evaluation, the site did not meet the minimum criteria necessary to be placed on EPA's "National Priorities List", a list of hazardous waste sites in the U.S. which are eligible for long-term cleanup financed under the federal Superfund program. However, it was subsequently determined that material contaminated with radiation was located beneath the asphalt parking lot shared by the bowling alley and a building supply center. EPA determined that the Agency would further assess the site to determine if an action under EPA's short term, or "removal" program was warranted.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

USEPA Pre-Remedial Program performed an assessment at the Niagara Falls Boulevard Site (NFB) in 2013-2014. Based on the Pre-Remedial Evaluation, the site did not meet the minimum criteria necessary to be placed on EPA's "National Priorities List", a list of hazardous waste sites in the U.S. which are eligible for long-term cleanup financed under the federal Superfund program. However, it was subsequently determined that material contaminated with radiation was located beneath the asphalt parking lot shared by the bowling alley and a building supply center. EPA determined that the Agency would further assess the site to determine if an action under EPA's short term, or "removal" program was

warranted.
May 31, 2106 through June 1, 2016, Public Affairs Official, Mike Basile, distributed the NFB Site Fact sheet to local officials, neighboring businesses, schools and communities.

On June 1, 2016, OSC Daly, Health Physicist (HP) Nguyen, Guardian Environmental Services (GES) and Weston mobilized for the initiation of the removal action. Equipment provided by USEPA Region 02, USEPA-ERT, Weston and Guardian Environmental Services.

From June 1st through June 5th the following tasks/events occurred:

- HP Nguyen and GES Health & Safety Officer brief team on radiological safety and overall site safety.
- HP Nguyen established instrumentation and procedural quality control.
- GES started construction of storage room in GNBC in order to relocate operator business literature and construction samples. This was performed in order to prepare for concrete/material removal from one of the designated areas floor.
- GES started the removal of above ground vegetation from the northern wooded areas of the Site. Sections of this area are preliminary designated for office and storage trailers.
- HP Nguyen, OSC Daly and Weston determined air monitoring strategies while ground vegetation removal was conducted. Multiple Radeco (gamma air sampler) and Dust Track (particulate monitor) instruments were deployed. As of the date of this report, no filter samples or monitor readings were observed above background levels.
- Weston conducted gamma survey of the cleared wooded areas as well as the entire parking lot areas of the property.
- Weston performed grid out of GNBC room ST-5 and performed thorough gamma survey.

From June 6th through June 11th the following tasks/events occurred:

- It was determined that the northern wooded areas exhibited elevated gamma levels and will not be used for trailer staging. This location selected for trailer staging is the south eastern part of the parking lot that exhibited predominately background gamma survey readings.
- The fenced in wooded area on the east side of the Site was cleared. This is an area with known elevated gamma survey readings. During the clearing process, the skid steer was monitored as was the abandoned tires that were removed from the area. No elevated gamma readings were observed.
- Office trailers, storage containers and roll-off containers were mobilized. Swipe samples were taken inside these units to document a radiological baseline for each unit. No radiological levels were above background. GES installed flooring (wooden layer and tile) in any trailer that did not have a floor covering to ensure the flooring is able to be cleaned and/or removed if contamination is present prior to demobilization.
- The storage room in the GNBC construction was completed.
- The removal of property owner material from Warehouse #3 was relocated to storage container in preparation for interior utility survey mark out.

  On June 10, 2016, reporter, Dan Telvock, from the Investigative Post visited the Site and conducted on camera interview with OSC Daly.

  On June 10, 2016, NYS DEC Regional representative visited and took a tour of ongoing activities at the Site.

USEPA has been coordinating with NYS, Niagara County and local representatives throughout the assessment/removal process.

2.1.2 Response Actions to Date

No removal of material has been conducted as of report date.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

PRPs are being investigated by USEPA Enforcement Team

2.1.4 Progress Metrics

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*

2.2 Planning Section

2.2.1 Anticipated Activities

Utility mark out in designated interior areas of GNBC.

Start deconstruction of GNBC non-load bearing walls.

Start concrete cuts in designated areas cleared by utility mark out.

2.2.1.1 Planned Response Activities

Removal of contaminated material from below the concrete flooring of designated areas within GNBC building.

2.2.1.2 Next Steps

Action Memo finalization.

2.2.2 Issues

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

2.4.1 Narrative

On May 13, 2016, ERRD Director authorized verbal funding for the Site in the amount of $600,000 to initiate the removal action.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				

ERRS - Cleanup Contractor	$500,000.00	$0.00	$500,000.00	100.00%
TAT/START	$100,000.00	$0.00	$100,000.00	100.00%
Intramural Costs				
Total Site Costs	$600,000.00	$0.00	$600,000.00	100.00%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

2.5.1 Safety Officer
GES Health and Safety Officer worked with HP Lyndsey Nguyen and OSC Daly to improve existing HASP and site activities.

2.5.2 Liaison Officer

2.5.3 Information Officer

Mike Basile is the lead USEPA Public Affairs Official. Mr. Basile distributed the NFB Site Fact sheet to local officials, neighboring businesses, schools and communities on May 31, 2016 and June 1, 2016.

3. Participating Entities

3.1 Unified Command

3.2 Cooperating Agencies
NYS DEC
NYS DOH
Niagara County DOH

4. Personnel On Site

OSC Daly
Health Physicist Lyndsey Nguyen
Weston: Two Technician
Guardian: RM, FCA, 2 Operators, 1 Tech & H&S Officer

5. Definition of Terms
No information available at this time.

6. Additional sources of information
No information available at this time.

7. Situational Reference Materials

No information available at this time.